

ABSTRACT OF THE DISCLOSURE

After forming a resist film of a chemically amplified resist material including a base polymer, an acid generator for generating an acid through irradiation with light and lactone, pattern exposure is performed by selectively irradiating the resist film with
5 exposing light while supplying, onto the resist film, water that is circulated and temporarily stored in a solution storage. After the pattern exposure, the resist film is subjected to post-exposure bake, and is then developed with an alkaline developer. Thus, a resist pattern made of an unexposed portion of the resist film can be formed in a good shape.